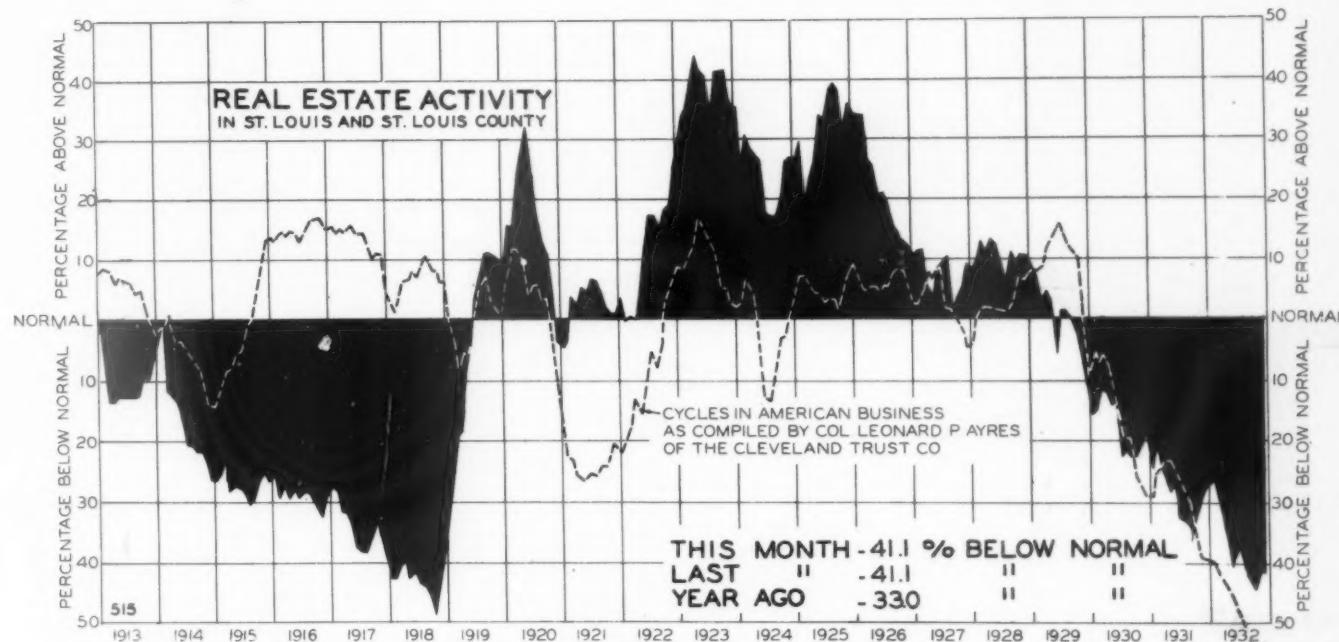




# The Real Estate ANALYST

SAINT LOUIS EDITION



DURING November, foreclosures continued the drop started during October (see chart, page 100). This is extremely encouraging. If general business does not suffer a relapse, there are many indications that further improvements can be expected in the near future. If, however, the international debt situation retards business recovery, foreclosures may hover around their present level for a short time longer.

The continued upward trend of local freight car loadings looks as if the bottom may have been reached in industrial production. Here, too, the international situation may again reverse the trend. The total of all money spent in Saint Louis by check is still trying unsuccessfully to find bottom. Price declines, enabling the same physical volume of business to be done with less money, together with the federal tax on checks, are probably responsible for the failure of this line to show any improvement so far.

Attention is called to the variations in cubic foot costs shown on page 97.

## THE MONTH'S CHANGES AT A GLANCE

The indicators at the bottom of the page will show at a glance the month's changes in conditions. The position of the arrow head shows the movement during the month - up indicating improvement and down, decline.

ACTIVITY	FORECLOSURES	CONSTRUCTION	APART. RENT	OTHER RENT	MARRIAGES
SEP. OCT. NOV.					
↑ ↓ ↑	↑ ↓ ↑	↑ ↓ ↑	↑ ↓ ↑	↑ ↓ ↑	↑ ↓ ↑

## VARIATION IN CONSTRUCTION COST OF A THIRTY-FAMILY REINFORCED CONCRETE APARTMENT

**I**N previous issues of the REAL ESTATE ANALYST, construction costs in Saint Louis of various types of masonry constructed buildings have been analyzed, year by year, since 1913. In this issue the construction cost of the thirty-family reinforced concrete apartment pictured on the page opposite is studied in detail from 1913 to the present.

The general specifications of this apartment, as figured, are as follows: CUBIC CONTENT - 303,534 cubic feet; FOOTINGS, FOUNDATIONS, COLUMNS, BEAMS - reinforced concrete, 1:2:4 mix; FLOORS AND ROOF - combination clay tile and concrete joist construction; CURTAIN WALLS - 13" matt brick, flemish bond, backed with dobies; INTERIOR PARTITIONS - 4" gypsum blocks; STONE SILLS - average grade; TERRA COTTA - ornamental garage front entrances, trim, coping, etc., as shown on photo; ROOF - towers, Spanish tile - balance, built-up asphalt over a layer of Celotex; SHEET METAL - sixteen-ounce copper used on all guttering, spouting and flashing; MILLWORK AND INTERIOR TRIM - good grade; PLASTER - two coats and one coat California Interior; FLOORS - basement and garage, concrete - all halls, entrances and baths, ceramic tile - all others, good quality oak laid on wood screeds set in concrete; STAIRS - all interior, metal with marble risers and treads; INTERIOR WALLS - entrances, marble wainscoting - baths, ceramic tile wainscoting - all walls rough plastered and painted; PLUMBING FIXTURES - good grade toilet, lavatory with wall bracket and single leg - 60" and 66" full roll recess tubs with showers - 42" one piece apron sinks; ELECTRIC WIRING AND FIXTURES - rigid conduit with good quality fixtures; HEATING PLANT - steam; REFRIGERATION - American boxes with multiple Frigidaire installation; STOVES - Quick Meal; BEDS - Murphy; INCINERATORS - 5 Kerner; REAR PORCHES AND STAIRS - iron with concrete floors; SCREENS - copper.

The problems involved in a correct appraisal of the replacement cost of this apartment in any given year are listed below:

**I.** During the period from 1913 to the present, it was found necessary to change the specifications several times, due to changes in materials available and differences in building practice. Multiple installations of electric refrigeration were not in common use prior to 1925 and accordingly were not figured in the cost up to that time. Murphy beds were not figured in the earlier years.

**II.** The specifications of this apartment, as figured for this study, have been varied slightly from the building as actually built. This was done to get price variations for the different years on items where continuous price information was available.

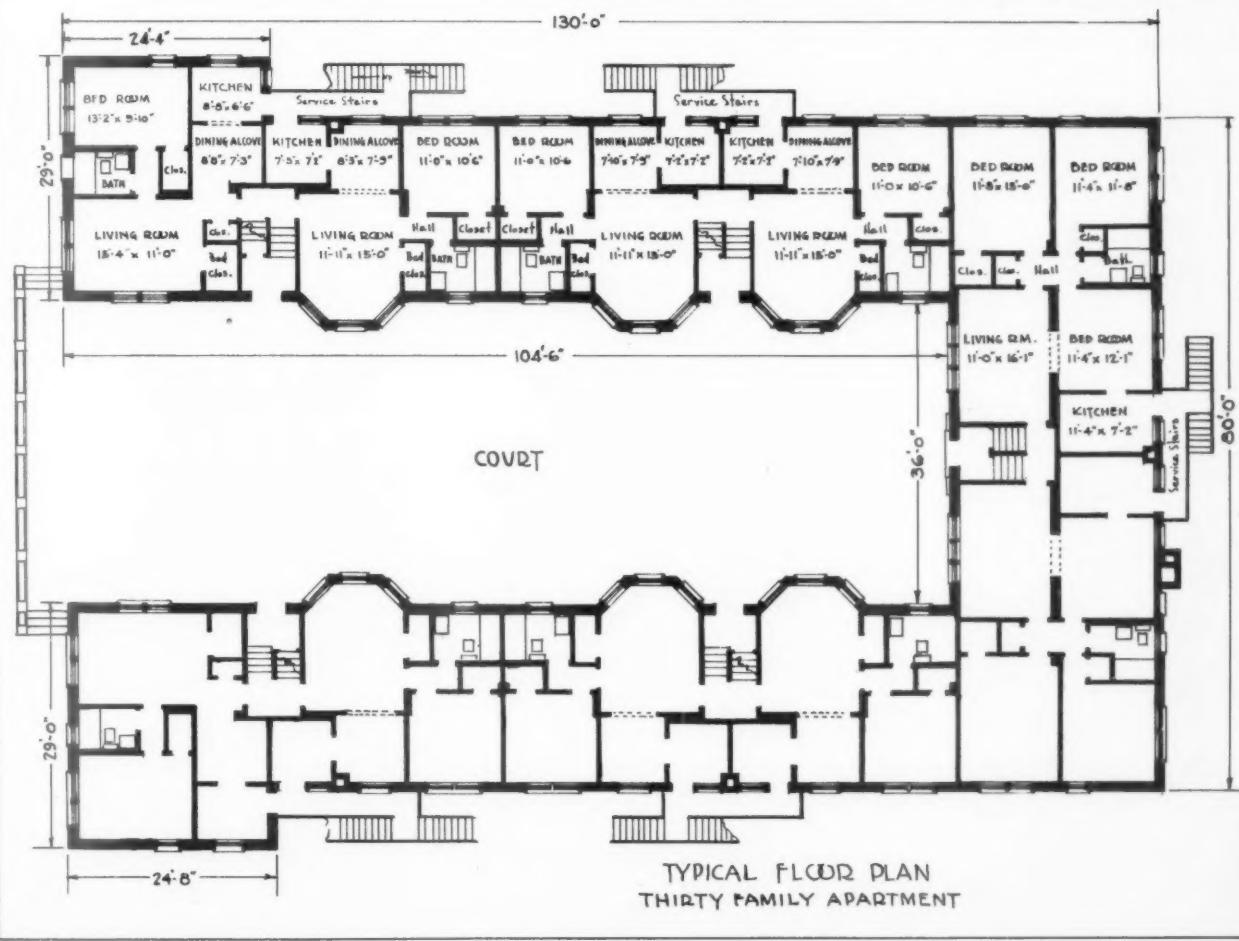
**III.** Many of these buildings were built non-union and others union. During the boom, we do not believe it made a great deal of difference in the cost of the labor, as most of the more efficient men were union and, while paid a higher wage due to greater skill, finished a given job at a not widely varying figure in comparison with lower paid non-union men. At the present time, however, a high quality of skill is obtainable at far less than union scales and as this has been taken advantage of on much of the building which has been done, it was felt that rates actually being paid should be used in place of theoretical scales. Tradesmen, contractors and labor agents have been consulted in an effort to ascertain wages actually being paid.

**IV.** Seven percent profit has been figured to the builder.

**V.** The figures shown on the table and chart on page 99 do not include the cost of financing, the value of the lot nor a sales commission. A separate study is given on page 98 showing by years the percentage of loan available, the commission percentage and the rate of interest.

The table on page 97 shows the cost of this building per cubic foot both with and without financing, sales commission and equipment.

The REAL ESTATE ANALYST expects to continue developing accurate replacement cost figures on all types of buildings. Studies in the offing include a large elevator apartment, a store with living quarters above, a warehouse and a typical, modern, one-story, gingerbread bungalow. In addition to developing new studies each month, the studies already made will be kept up to date.

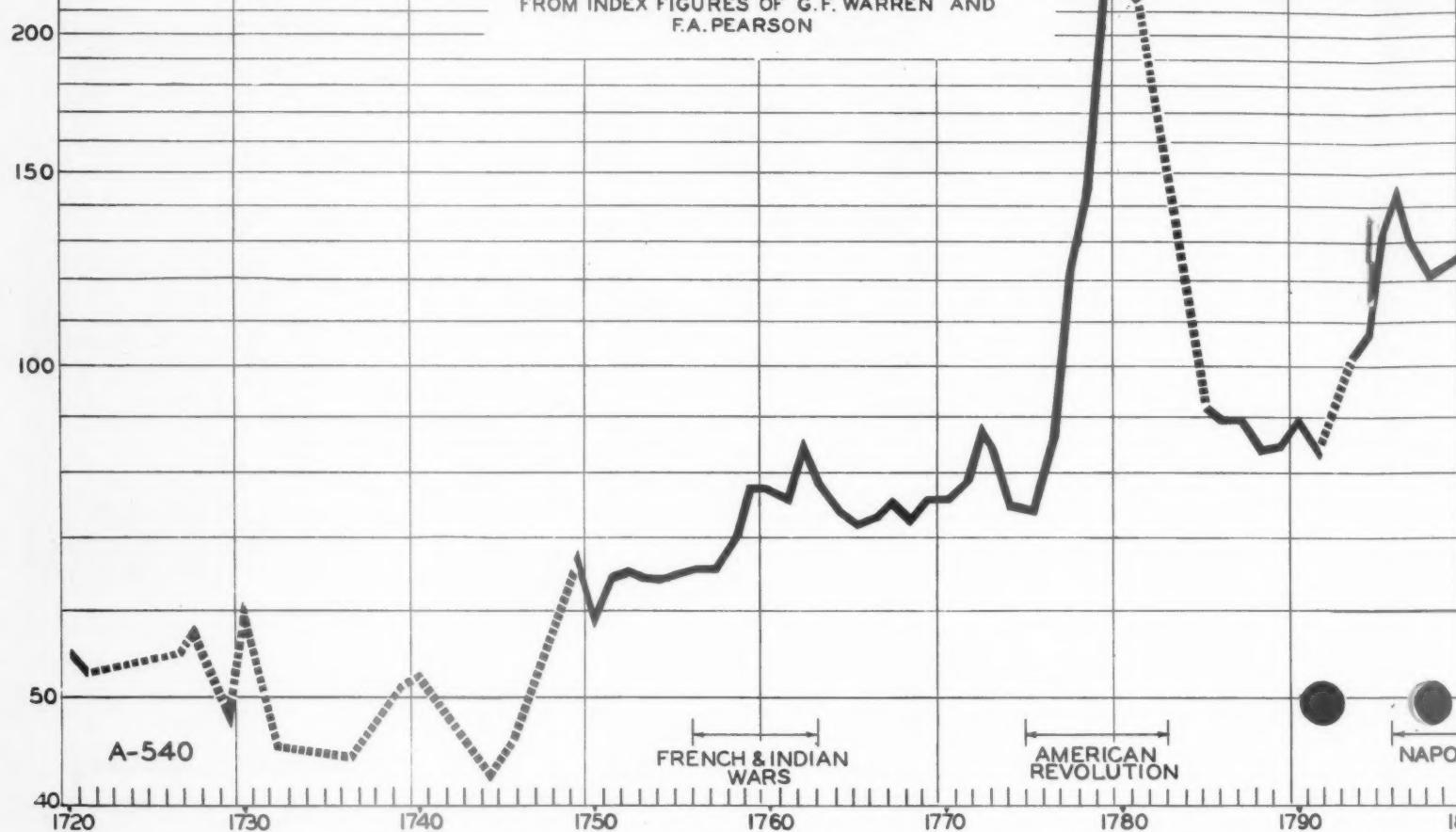


300

# WHOLESALE PRICES IN THE UNITED STATES

FROM 1720 TO THE PRESENT

PREPARED BY REAL ESTATE ANALYSTS, INC.,  
FROM INDEX FIGURES OF G. F. WARREN AND  
F. A. PEARSON

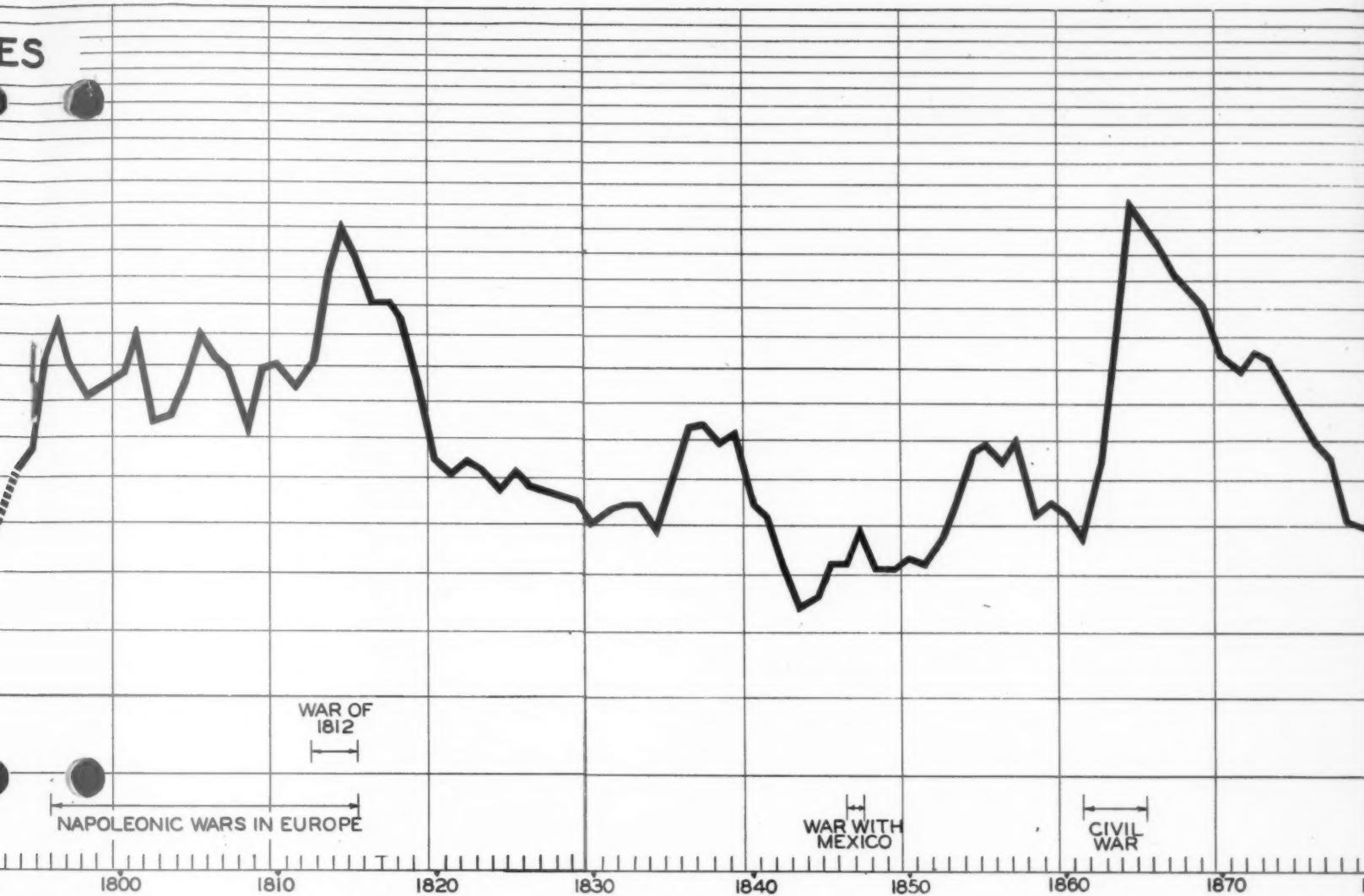


THE chart above shows the fluctuations in wholesale prices in the United States from 1720 to the present time, a period of 212 years. The price index from which it was charted was painstakingly compiled by G. F. Warren and F. A. Pearson, the foremost authorities in the United States on price fluctuations. A small copy of this chart extending from 1797 to the present was shown on page 26 of the May issue of the REAL ESTATE ANALYST.

As the fluctuations this chart portrays are of fundamental importance to every owner of real estate, it is presented here in detail.

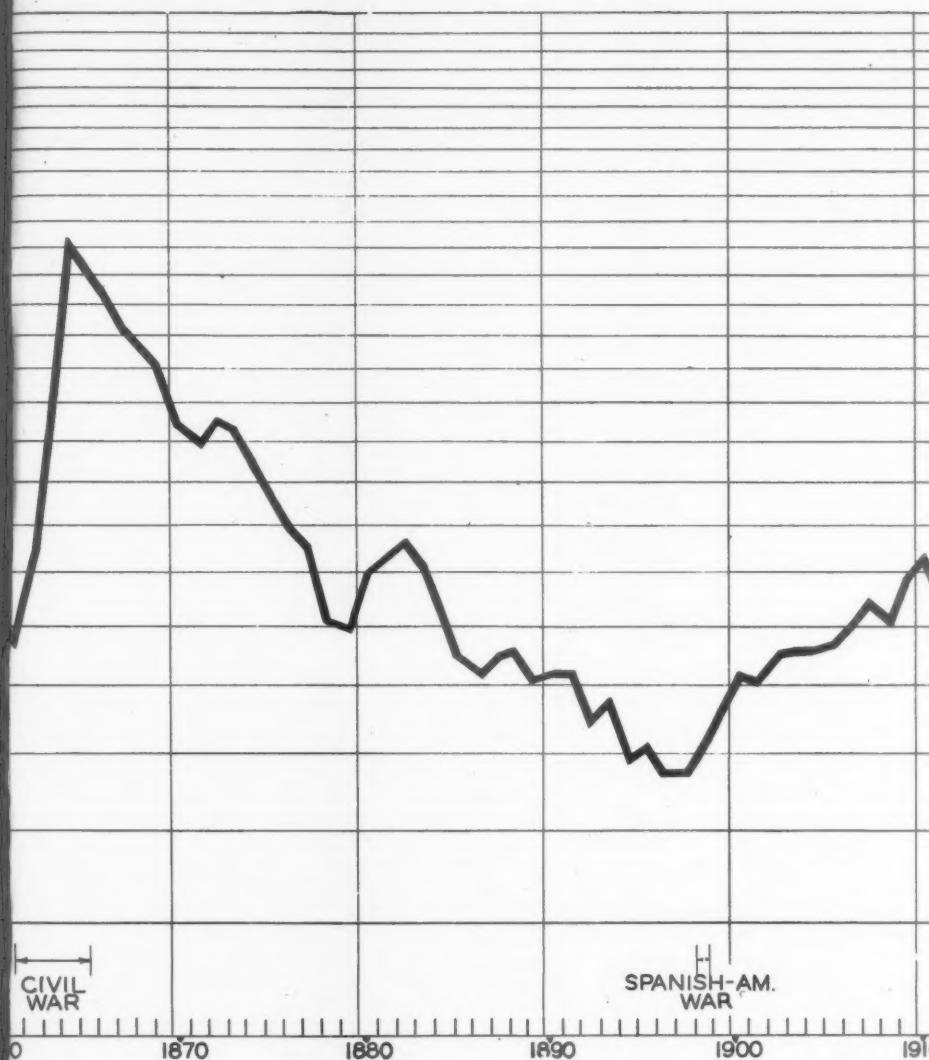
Those years shown by a dotted line are years in which data could be found only for scattered months, making it necessary to estimate the annual figures. In most cases, however, sufficient data was found to make the position of the dotted line fairly definite.

What causes price fluctuations? It has been the custom, in the past, to attribute them to variations in the supply of and demand for commodities. This explanation seems quite reasonable at first glance and thoroughly in accord with our own experience. We know that a shortage of houses causes rents and prices to rise and an oversupply causes them to drop. If this were the only determinant it would be very easy to forecast real estate prices and rentals. It would be necessary to study only vacancy, rate of new building and rate of absorption. Warren and Pearson have found, however, that supply of and demand for commodities is only one factor in determining price and REAL ESTATE ANALYSTS, Inc., have found, by careful measurement of rents and values over an 81-year period, that shortage and oversupply of living quarters are only partial explanations of the fluctuations in rentals and values which have occurred in that period.



The greatest cause of price variations is the variation, not in goods or houses, but in the value of money. (See the REAL ESTATE ANALYST for May, pages 26-28). The reasons for these fluctuations in the value of money are of tremendous interest to economists. The fact of these fluctuations, regardless of cause, is of interest to real estate operators as real estate prices and rentals depend, like everything else, on the value of money.

In all of the four major war peaks shown in the chart above, real estate prices were high because wheat and cotton and countless other things were high - because money had little value. It took a lot of this money to buy anything. After each of these peak periods, prices have returned to a much lower level. The greater part of the readjustment in commodity prices after the World War peak has now taken place. It is not yet completed in real estate, although the readjustment is taking place quite rapidly at the present time. Replacement costs, as shown by the studies of various type buildings published in the REAL ESTATE ANALYST, have dropped until today they range from 14 to 27% above 1913. During the peak, they rose to 92% above prewar. It should be kept in mind in speaking of construction that the buildings of 1913 and of 1932 are far different, while many commodities figured in the index charted above have remained the same. Conduit wiring, electrical refrigeration, stoves and other interior equipment, face brick on all four sides of the building, tiled bath walls, elaborate plumbing fixtures, craftek plaster, etc., etc., are all in the cost today figured against the cost of the buildings in 1913, without these improvements. For this reason, if building costs should drop to prewar, it will be equivalent to a drop in the commodity index to at least 10% below prewar. Many building materials today are selling for a price at the mill or the shop below prewar. A material drop in freight rates (not expected in the immediate future) would result in a further drop in building prices.

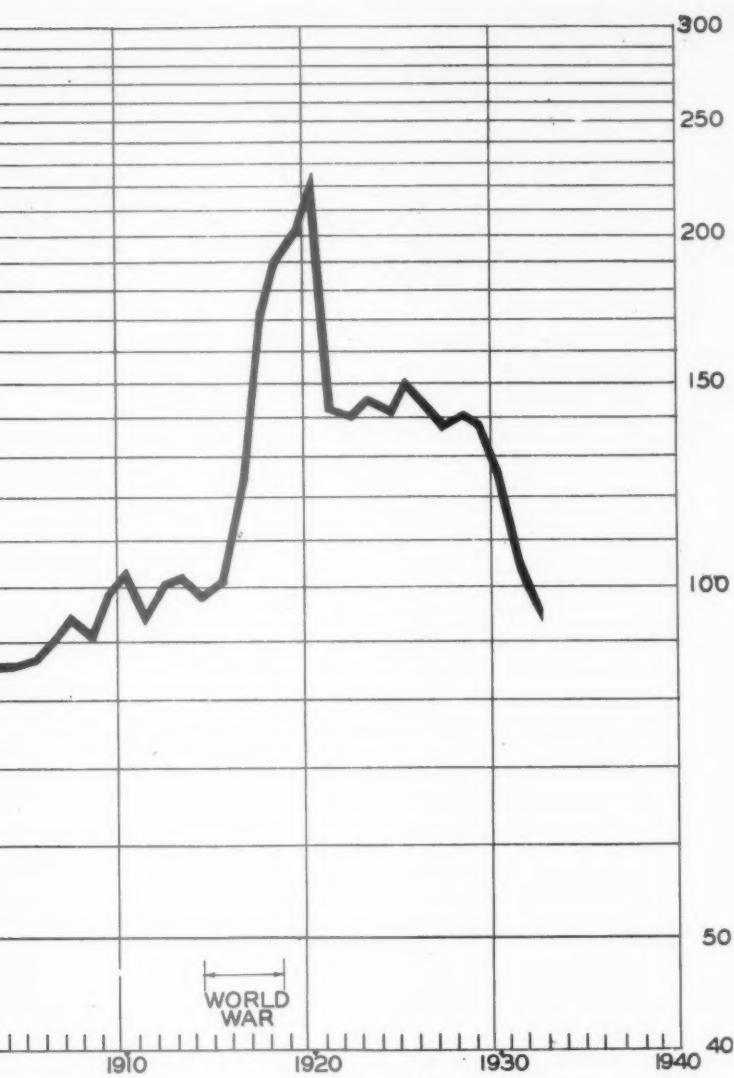


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What of the future? During the past few months material prices, in common with most other prices, have stabilized and shown little change after the drop of the past few years. Is this the beginning of an upswing and if so, how far will the advance go? Referring to the chart above, it will be noted that an advance starts with any strength during 1933, which will be the first time that prices have started immediately following a tremendous drop. In 1784, after the Revolution, the rapid drop was followed by years of minor fluctuations before prices again turned upward. In 1820, we had completed a rapid drop, ending 1821, prices dropped slightly further before the upward movement started. In 1878, we had completed a period of prices most similar to the present but followed a slight further recession. It seems quite likely, therefore, from this and other data that 1933 will be a year of slight general price changes.

There is no reason to believe that building costs will prove an exception. With little new building prospect and with 9.1% of our Saint Louis male population normally employed in the building trades, there is slight possibility of labor costs increasing. Material prices need a substantial demand to support an appreciable advance. We do not anticipate, however, any radical changes in construction costs for 1933.



## CUBIC COST - DECEMBER, 1932

**I**N the tables below, present replacement costs per cubic foot are given with various variations for the four types of construction studied in the REAL ESTATE ANALYST to date. All of these costs are based on cubic content determined in accordance with "The Standard Method of Determining Cubic Content of a Building" on page 86 in the November issue of the REAL ESTATE ANALYST.

It is not thought that any two builders could build the buildings described with identical costs. It is not, however, the cost of any one builder which determines the market, but the average experience of all. In preparing these figures this has been kept in mind and it is thought that they represent average costs of construction, competently supervised.

SINGLE FAMILY RESIDENCE, as shown and described on pages 62 and 63, including cost of financing and sales commission..... 23.75¢

With copper guttering, spouting and flashing, add .25¢  
With variegated slate roofing, add 1.00¢  
With hot water heat, add .90¢

Without tile walls in bath, subtract .37¢  
Without shower and with ordinary plumbing fixtures, subtract .32¢  
With ordinary millwork, subtract .50¢  
Without financing and sales commission, subtract 2.42¢

SPECULATIVE FOUR-FAMILY FLAT, as shown and described on pages 72 and 73, including cost of financing and sales commission but excluding front and rear porches, which should be figured separately..... 20.20¢

With copper guttering, spouting and flashing, add .09¢  
With steam heat, add .51¢  
With tile walls in baths, add .57¢  
With showers in baths, add .13¢  
With first class plumbing fixtures, add .58¢  
With first grade roofing, add .11¢

Without financing and sales commission, subtract 1.72¢

Cost of front and rear porches at present - \$450.00

EIGHTEEN-FAMILY MASONRY APARTMENT, as shown and described on pages 82 and 83, including cost of financing and sales commission..... 29.72¢

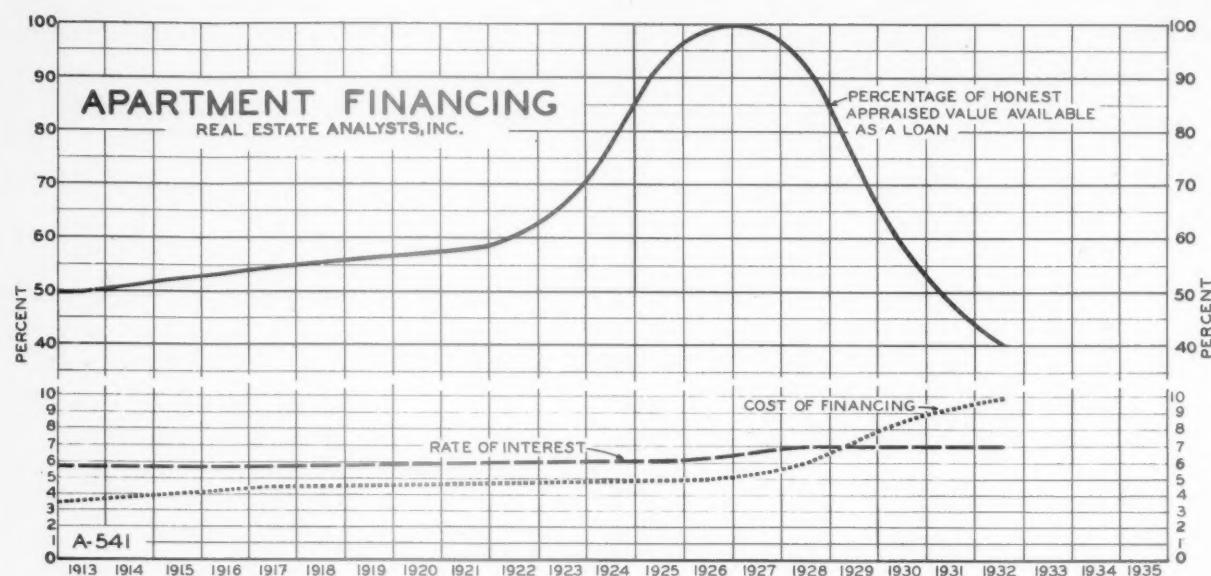
With electrical refrigeration, add 1.11¢  
With gas stoves, add .24¢  
With beds, add .12¢  
With iron rear porches and steps, add 1.20¢

Without financing or sales commission, subtract 2.48¢

THIRTY-FAMILY REINFORCED CONCRETE APARTMENT, as shown and described on pages 92 and 93, including cost of financing and sales commission..... 35.93¢

With electrical refrigeration, add 1.00¢  
With gas stoves, add .16¢  
With beds, add .11¢  
With iron rear porches and steps, add 1.20¢

Without financing or sales commission, subtract 2.97¢



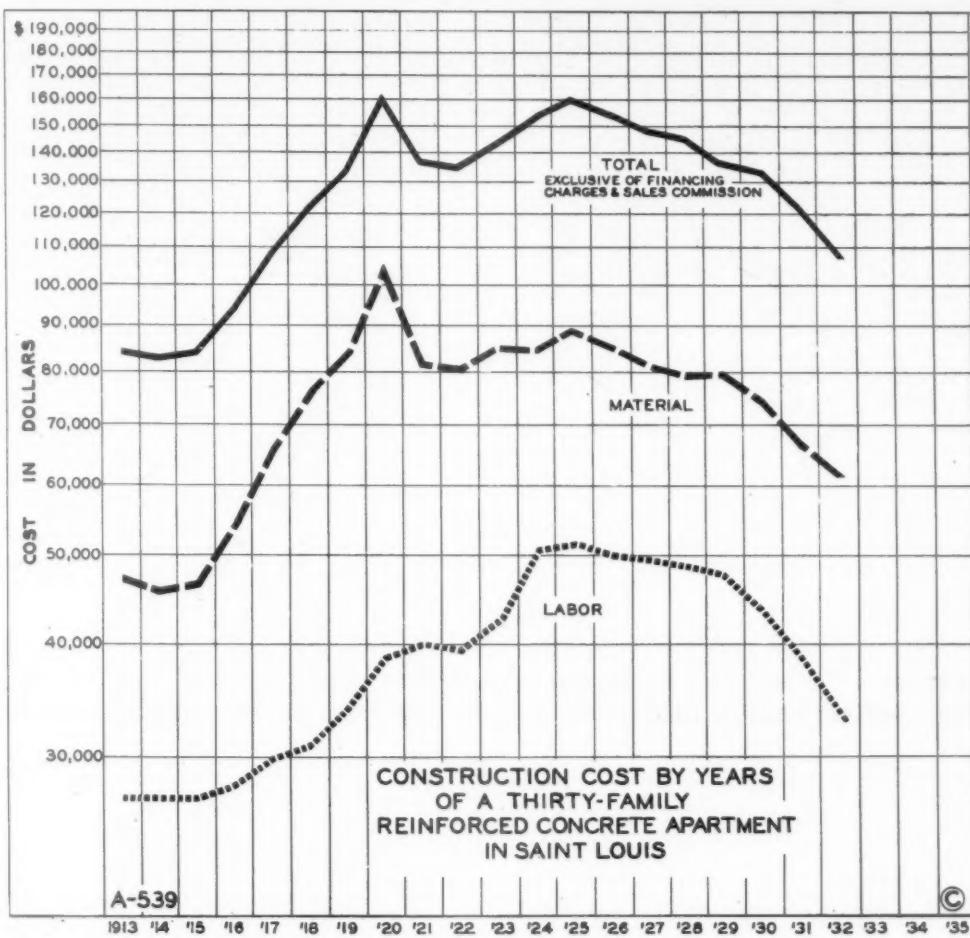
THE chart above shows the variation in the various factors in apartment financing from 1913 to the present. The solid line shows the percentage of an honest appraisal available as a first mortgage loan on the property. The dash line shows the rate of interest and the dotted line the cost of financing. The percentages shown by these lines represent average experience on large projects rather than the specific experience on any one project.

It will be noted that in figuring the percentage of loan available, it is stated that the percentage shown is "on an honest appraisal" basis. In most cases where heavy loans were made during the height of the boom, construction costs were "padded" to the point where the cost of the project appeared to be at least a third greater than the loan, while in many cases the loan covered the entire cost of the building and land with sometimes a profit for the promoter to boot. The mortgage interests were at least partially responsible for this condition. It is inconceivable that their engineers and appraisers were not able to estimate costs accurately enough to detect the padding. In fact, in many cases it is certain that mortgage interests knew the actual costs and still made loans on inflated appraisals, feeling that these appraisals were justified by the high rentals obtainable. During the boom the "new era" psychology was rampant and many people believed that prosperity could be maintained indefinitely. Had this been possible, these inflated loans would have probably paid out. As it is, they are almost all in receivership.

Take, for example, a building similar to the thirty-family reinforced concrete apartment figured for costs in this issue. Had an apartment of this type been built in 1926, it could have been built for \$154,592. The land would probably have cost \$25,000, or a total for land and building of approximately \$180,000. If the building had been built by a speculative builder, he would have added to this cost a sales commission and the cost of financing, bringing the total cost of the project to about \$197,000. During the height of the boom, through an inflated appraisal, he could, in many cases, secure a \$200,000 first mortgage. Using the size of this mortgage as an indication of still greater value, he could either sell or trade "his equity" and pocket his profit. All went well for a while in projects of this sort until increasing vacancies and falling rental schedules made it impossible to meet interest and payoffs on hundred percent mortgages.

It will be many years, fortunately, before the memory of the excesses of the past boom fades sufficiently to make their recurrence possible. During the next ten years, loans of 40-60% on large projects on honest appraisals will be the accepted standard. Higher percentages will be unsalable.

The REAL ESTATE ANALYST is published monthly by REAL ESTATE ANALYSTS, INC., Saint Louis, a statistical, survey and appraisal organization. The subscription price is \$180 a year, payable semi-annually in advance. REAL ESTATE ANALYSTS, INC., is not engaged in financing, management or brokerage of real estate.



The "total" line shows the total cost of construction by years of building the thirty-family apartment described and pictured on pages 92 and 93. This includes all labor and material and, in addition, insurance and interest during construction. It includes the cost of porches, and of electrical refrigeration from 1924 to the present. Because of the problem involved in financing buildings of this sort, the cost of financing and the sales commission are not included in this study as they were in preceding studies. See page 98 for a separate discussion of these factors.

The "material" line shows the total cost each year of all building material used in the construction of this building.

The "labor" line shows the total labor cost (open shop) of building this apartment each year from 1913 to the present.

NOTE: These figures do not include the cost of the site, the cost of financing, or a sales commission.

THE chart above shows the variations since 1913 in the cost of construction in Saint Louis of a thirty-family reinforced concrete apartment, described and pictured on pages 93 and 93. On the chart the cost is separated into material and labor. The table below itemizes

the material, labor and overhead costs in greater detail. Each column in the table is numbered and a brief description of the items included in each is given in the paragraphs below. Each paragraph is numbered to correspond with the column it describes.

#### MATERIAL

- Cost of face brick, dobbies, flue lining, terra cotta, cut stone, marble and tile.
- Cost of concrete, claytile and reinforcing.
- Cost of all plastering materials.
- Cost of all lumber, flooring, millwork, roofing, paint, etc.
- Cost of all materials for plumbing, heating, electrical work, sheet metal work, iron work, hardware and special equipment.
- TOTAL MATERIAL COST.

#### LABOR

- Cost of setting all stone, tile and marble and laying all brick.
- Cost of carpentry, roofing, flooring, painting, decorating, and builder's general supervision.
- Cost of labor on plastering.
- Cost of installing plumbing material and fixtures, wiring, heating plant and sheet metal work.
- Cost of excavation and miscellaneous.
- TOTAL LABOR COST.

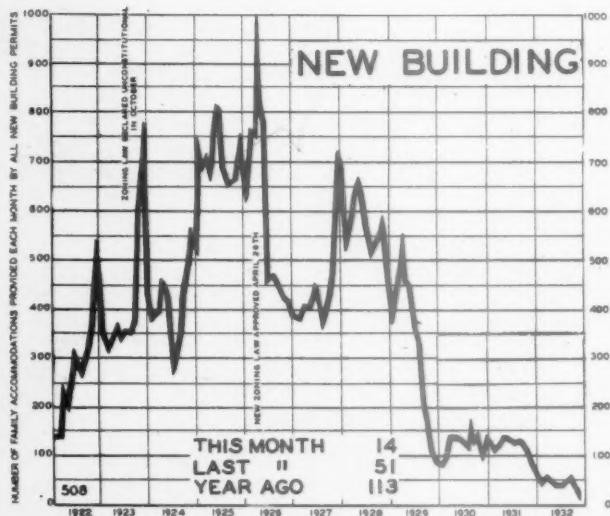
#### OVERHEAD

- Cost of all city permits, utility connection costs, plans and engineering fees.
- Cost of interest during construction and taxes and insurance.
- Estimated profit made by the builder - 7%.
- TOTAL OVERHEAD COST.
- TOTAL COST OF CONSTRUCTION.

YEAR	MATERIAL					LABOR					OVERHEAD					TOTAL	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1932	\$14416	\$80158	\$5796	\$118134	\$21354	\$61394	\$9819	\$100908	\$3270	\$7826	\$2080	\$33085	\$2260	\$4065	\$6750	\$13075	\$107554
1931	16426	7829	5719	12847	24066	66887	11800	11841	3960	9285	2370	39056	2465	4513	7600	14578	120521
1930	18630	8973	5952	14737	26499	74791	13469	13536	4537	9296	3160	43958	2549	5057	8500	16106	134555
1929	19120	10160	5631	17067	28385	80563	13598	16462	5074	9306	3477	47917	2649	5170	9160	16979	137440
1928	19754	10220	5893	16227	28035	79929	14474	16380	5720	9315	3380	49269	2670	5427	9250	17347	146545
1927	20231	10020	6078	16494	28996	81819	14995	16380	6000	9062	3380	49817	2670	5537	9400	17607	149243
1926	21046	10240	6029	18192	30475	85982	15162	16440	6100	9205	3580	50287	2870	5703	9750	18323	154592
1925	22210	10785	6678	19305	30898	89876	15832	16360	6910	9497	3380	51979	2920	5888	10020	18828	166683
1924	23130	10955	6730	19885	24583	85283	14538	16213	6840	10087	3380	51058	2620	5548	9750	17918	154259
1923	22230	11005	6385	21905	23910	85435	11930	13696	5560	8560	3100	42849	2220	5313	9150	16663	144967
1922	20281	10010	6358	20818	23655	81123	11024	12528	5560	8044	2710	39866	2020	5218	8600	15838	156827
1921	20193	11220	6890	19912	24134	82349	11101	13483	5450	7527	2710	40271	2010	5248	8700	15958	138578
1920	24210	15110	7958	27558	30608	105424	10351	13261	5090	7414	2710	38826	2070	5863	10020	17953	162203
1919	19574	11385	6014	22046	25679	84698	10698	9230	5350	6326	2120	33704	1770	4865	8400	15033	133435
1918	15724	10157	5396	19330	25974	76581	9574	8600	5020	6084	1900	31178	1635	4428	7700	13763	121522
1917	13534	10693	4025	14100	23867	66219	9417	7953	4880	5954	1900	30104	1720	3973	6850	12543	108866
1916	12184	7389	3587	13336	18296	54792	8307	7326	4690	5777	1900	28000	1545	3473	5900	10918	93710
1915	10994	5487	3642	12640	14260	47023	7957	7277	4595	5597	1900	27326	1495	3188	5300	9983	84332
1914	10654	5427	3642	12659	13865	46247	7987	7277	4630	5367	1900	27161	1445	3103	5250	9798	83206
1913	10584	5977	3642	12537	14815	47555	7987	7217	4630	5367	1900	27101	1445	3143	5320	9908	84564

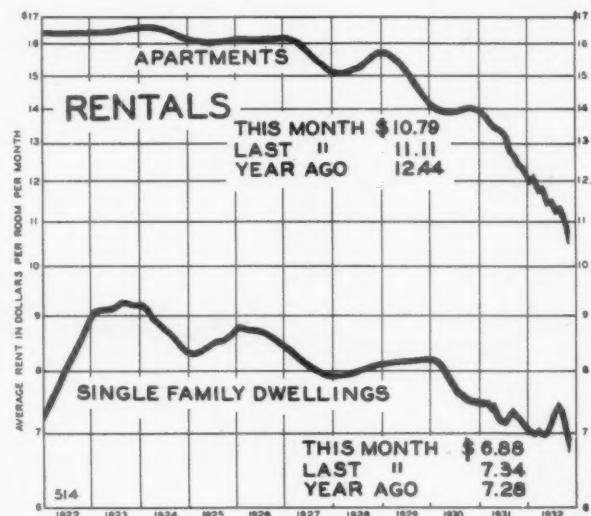


Both single family dwelling and apartment advertised rentals, as shown on the chart to the right, continued their decline at an accelerated rate during November. This drop, due to the large vacancy situations and unemployment, was inevitable and will continue still further this winter.



As shown on the chart to the right, each succeeding month has been setting a new low record for marriages in Saint Louis. The November figure of 12.6 marriages for each 10,000 males, 21 years of age or older was 56.3% below normal. The 423 marriages during November was a smaller number than Saint Louis has had in any November since 1887, forty-five years ago. At that time the population was just about half its present number.

THE foreclosure chart to the left is the most encouraging of our barometers this month. The REAL ESTATE ANALYST has stated for the past few months that the rate of increase in foreclosures had slowed up and that a drop from the alarming heights would probably start some time soon. If general business receives no severe setback, foreclosures should now start a gradual decline.



DWELLING quarters were provided for only fourteen families by the building permits issued during November. This is the smallest number since March, 1919. Only eight months in the last fifty-three years have been this low or lower and all of these months were during the World War period. The restriction of new building is the best way to reduce the present oversupply of living quarters.

